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Current status on research in Photonic Systems for next generation network

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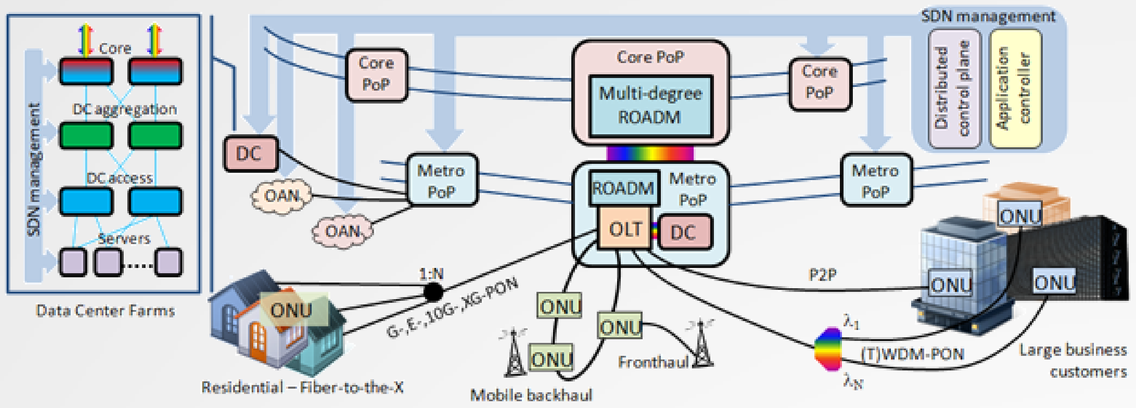
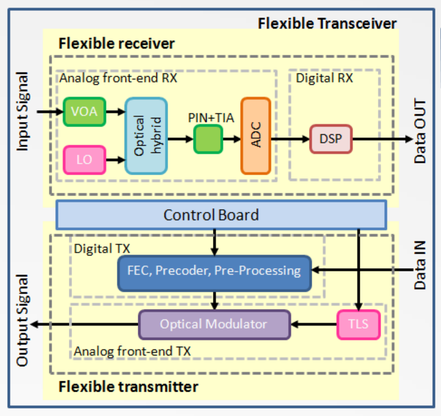
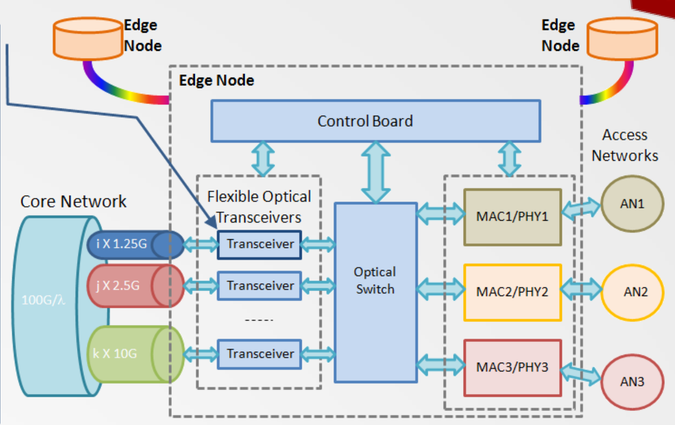
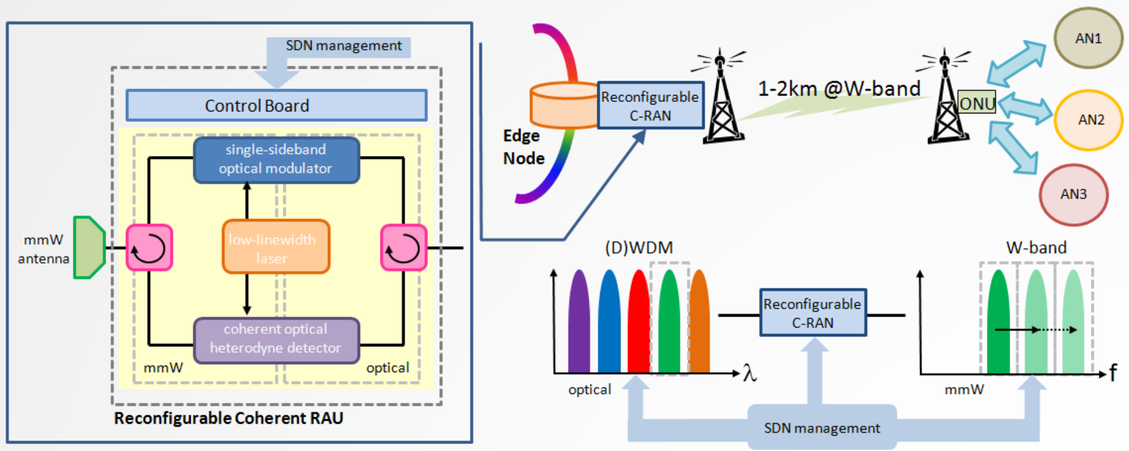








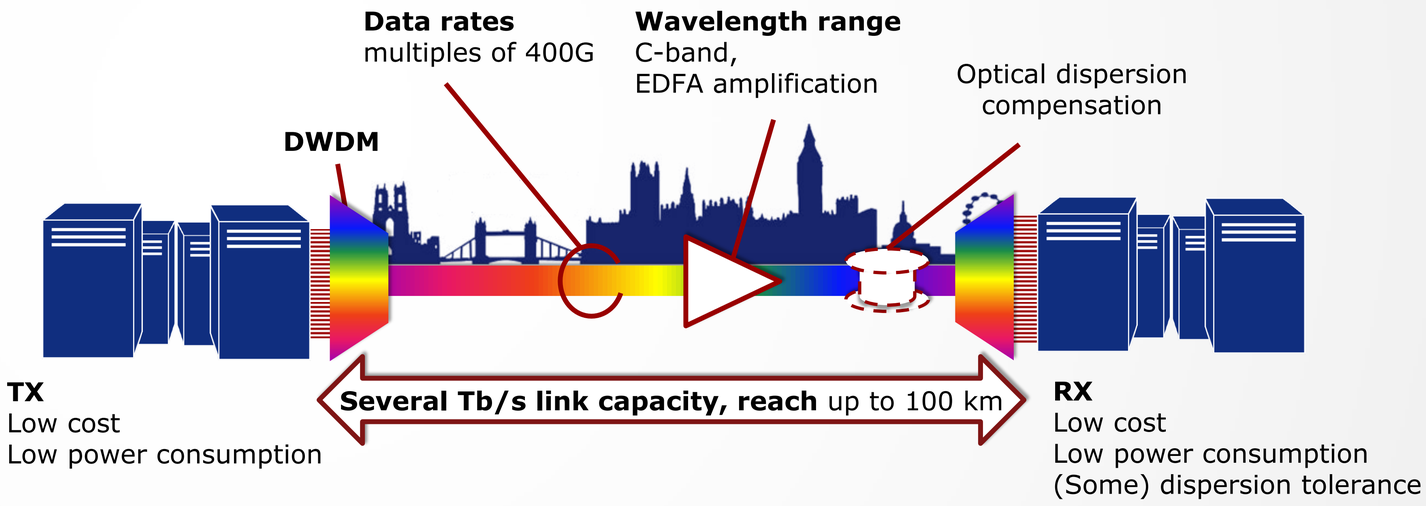
Motivation

- Communication challenges need to be addressed holistically
- Research in one area impact adjacent ones
- Integration of the hardware and the software layer

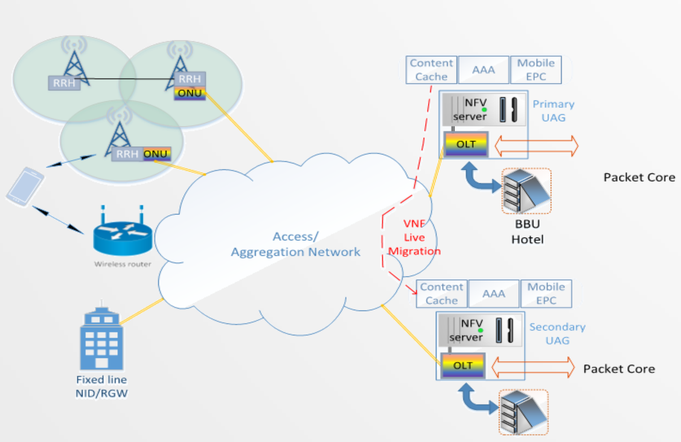
DWDM Interconnections for Data Center

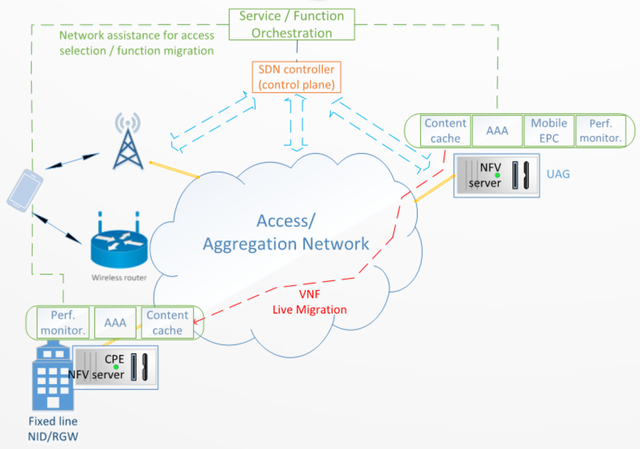
Current research activities

- PAM-4 and PAM-8
- DMT and MultiCAP
- Polybinary signaling
- Low-cost VCSELs
- Digital signal processing



Software Defined Networking





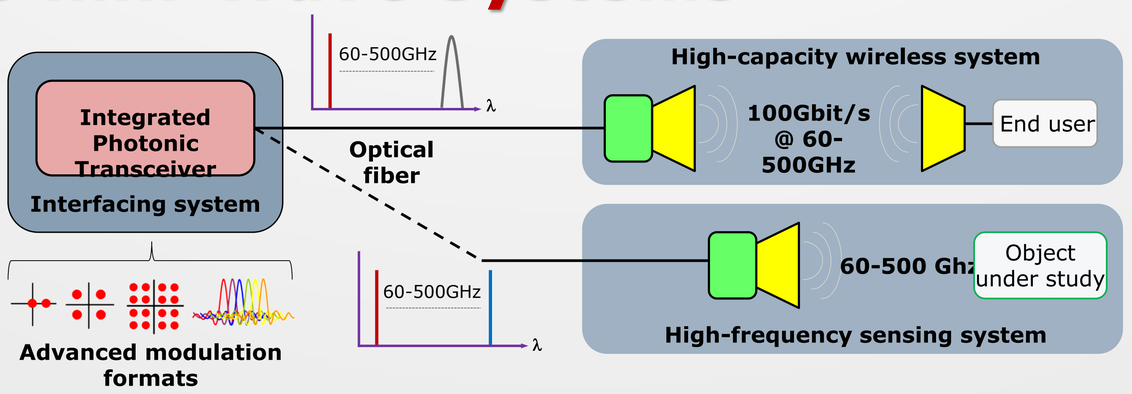
Current research activities

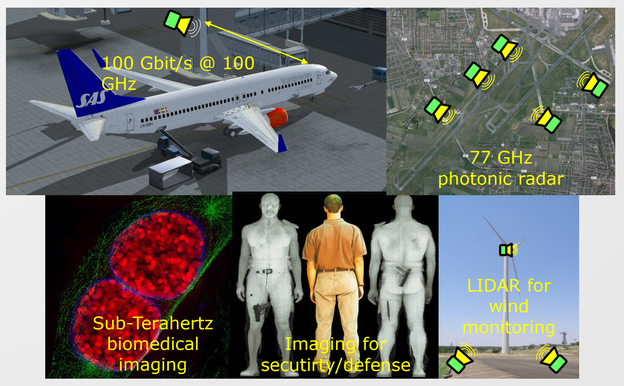
- SDN performance in intra-data centers
- VNF live migration
- API extensions
- Integration of SDN with SD-optics

Photonic-Wireless mm-Wave Systems

Current research activities

- Silicon photonic integration
- Low-complexity Tx/Rx
- Channel models
- Multiband operation





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